

## **CHAPTER 1: INTRODUCTION**

### **The California High School Exit Examination**

The California legislation that established the requirement that students pass a graduation exam in mathematics and English-language arts (ELA) beginning with the Class of 2004 (established by Senate Bill (SB)-2X, passed in 1999 and written into the California Education Code as Chapter 8, Sections 60850-60856) was further modified in 2002 through the passage of Assembly Bill (AB) 1609. The revised legislation gave the State Board of Education (the Board) authority to postpone the CAHSEE requirement, based in part on the results of a study of the extent to which both test development and standards-based instruction met standards for this type of examination (Wise et al., 2003a). In July 2003, after the completion of the 2002–03 CAHSEE testing, the Board voted to defer the CAHSEE requirement until 2006.

The original legislation that mandated the requirements for the graduation exam also specified an independent evaluation of the CAHSEE. The California Department of Education (CDE) awarded a contract for this evaluation to the Human Resources Research Organization (HumRRO). HumRRO's efforts have focused on analyses of data from tryouts of test questions and from the annual administrations of the CAHSEE, and report on trends in pupil performance and retention, graduation, dropout, and college attendance rates. The legislation also specified that evaluation reporting would include recommendations for improving the quality, fairness, validity, and reliability of the examination. The legislation required an initial evaluation report in June 2000 and biennial reports to the Governor, the Legislature, the Board, and the CDE in February 2002 and February 2004.

In addition to the legislatively required evaluation reports, the contract for the evaluation required an annual report of evaluation activities. The present report meets the contract requirement for a report of activities and findings during the fifth year of the evaluation. This report adds to results and recommendations included in prior evaluation reports (Wise, Hoffman, & Harris, 2000; Wise, Harris, Sipes, Hoffman, & Ford, 2000a; Wise, Sipes, George, Ford, & Harris, 2001; Wise et al., 2002b; Wise et al., 2003; Wise et al., 2004). Findings and recommendations from the prior reports are summarized briefly in the next sections to provide a context for the continuing evaluation activities.

### **Prior Evaluation Activities and Outcomes**

#### ***Summary of Year 1 Activities (June 2000)***

The Year 1 evaluation report reviewed and analyzed three types of information:

*Test Developer Plans and Reports.* No formal reports were available during the first year; thus, we attended meetings and listened to presentations by the development contractor, American Institutes for Research (AIR), and by the CDE. We also monitored various presentations to the High School Exit

Examination (HSEE) Panel and to the Board and had direct conversations with members of each of these groups.

*Statewide Data Sources.* An initial source of information for our evaluation was data from the CAHSEE pilot administration. We also examined 1999 Standardized Testing and Reporting (STAR; for details see <http://www.cde.ca.gov/ta/tg/sr/index.asp>) results with plans to monitor trends in STAR results over the course of the evaluation.

*District and School Sample.* We selected a representative sample of 24 districts and approximately 90 of their high schools to establish a longitudinal group for study. The baseline surveys, which were administered to principals and English-language arts and mathematics teachers, provided an initial look at schools' perspectives of the impact of CAHSEE on their programs. We also recruited teachers and curriculum experts from these schools and their districts to review test items and tell us if they covered knowledge and skills that not all students would be taught in their current curriculum.

The following summarizes the specific recommendations made at the end of the Year 1 evaluation activities.

*Recommendation 1.* The Legislature and Governor should give serious consideration to postponing full implementation of the CAHSEE requirement by 1 or 2 years.

*Recommendation 2.* The CDE should develop and seek comment on a more detailed timeline for CAHSEE implementation activities. This timeline should show responsibility for each required task and responsibility for oversight of the performance of each task. The plan should show key points at which decisions by the Board or others would be required along with separate paths for alternative decisions made at each of these points.

*Recommendation 3.* The CDE and the Board should work with districts to identify resource requirements associated with CAHSEE implementation. The Legislature must be ready to continue to fund activities to support the preparation of students to meet the ambitious challenges embodied in the CAHSEE.

*Recommendation 4.* The Board should adopt a clear statement of its intentions in setting CAHSEE content and performance standards. This statement should describe the extent to which these standards are targeted to ensure minimum achievement relative to current levels or to significantly advance overall expectations for student achievement.

*Recommendation 5.* The Board should exhibit moderation in selecting content standards and setting performance standards for the initial implementation of CAHSEE. Subsequently, standards should be expanded or increased based on evidence of improved instruction.

*Recommendation 6.* Members of the HSEE Panel and its Technical Advisory Committee should participate in developing recommendations for minimum performance standards.

*Recommendation 7.* The CDE should move swiftly to establish an independent Technical Issues Committee (TIC) to recommend approval or changes to the CAHSEE development contractor's plans for item screening, form assembly, form equating, scoring, and reporting.

Complete details of the Year 1 effort, including selection procedures for the longitudinal sample, are presented in a primary and a supplemental report describing evaluation activities, findings, and recommendations (Wise et al., June 2000a; Wise et al., August 2000b). These two evaluation reports emphasize both the positive aspects of the results, as indicated by several measures of the quality of the test questions, and the amount of work remaining to be done before operational administration of the CAHSEE. The primary apprehension noted in these reports was educators' concern that at that time, students were not well prepared to pass the exam.

### ***District Baseline Survey Resulting from Year 1 Activities (December 2000)***

The results of the baseline survey of teachers and principals in the longitudinal sample of high schools indicated concern with the degree to which students were being provided sufficient opportunities to learn the material covered by the CAHSEE. After reviewing these concerns, the Board and the CDE requested an additional survey of all public high school and unified districts in California. HumRRO developed and sent out the CAHSEE District Baseline Survey shortly after the Board adopted specifications for the CAHSEE, which was required prior to October 1, 2000. The survey covered plans for changes in curriculum and other programs to help students pass the examination. We asked that each district have the survey completed by an Assistant Superintendent or Director of Curriculum and Instruction, or the individual at the district level who was most knowledgeable about the CAHSEE.

The survey, which built on and benefited from the results of the longitudinal sample survey, addressed five critical topics:

1. *Awareness* of the CAHSEE, its content, administration plans, and requirements for student participation.
2. *Alignment* of the district's curriculum to statewide content standards, particularly those to be covered by the CAHSEE.
3. *Plans and Preparation* for increasing opportunities for all students to learn the material covered by the CAHSEE and to help students who do not initially pass the examination.
4. *Expectations* for passing rates and for the effect of the CAHSEE on instruction and the status of specific programs offered in the district.

5. *Outcome baselines*, including retention and graduation rates and students' post-graduation plans.

The following general conclusions were drawn from results of the district survey:

1. *General awareness* of the CAHSEE was high, but more information was needed, particularly for students and parents, about (a) the knowledge and skills covered by the CAHSEE and (b) plans for administration and reporting.
2. *Districts reported high degrees of alignment* of their own content standards to the state content standards. The survey addressed this question at a general level; we concluded more work was needed to assess and document the degree to which each district's curriculum covered the content standards tested by the CAHSEE and the degree of student access to courses that offered such coverage.
3. *Districts had implemented or planned a number of programs* to prepare students and teachers for the CAHSEE and to assist students who did not initially pass. The most frequently planned activities included more summer school, tutoring, and matching student needs to specific courses.
4. *Districts believed the CAHSEE would have a positive impact* on curriculum and instruction. Most expected at least half of their students to pass the CAHSEE on their first attempt.
5. *Outcome baselines* would be used in future years.

Complete details of the district-wide survey effort were presented in a final technical report describing evaluation activities, findings, and recommendations (Sipes, Harris, Wise, & Gribben, 2001).

### **Summary of Year 2 Activities (June 2001)**

The Year 2 evaluation reviewed and analyzed three types of information:

*Developer Plans and Reports.* We continued to monitor test development activities, ranging from observation of and presentations to the HSEE Panel to observation of the standard-setting workshops to develop recommendations for minimum passing scores for each of the two portions of the CAHSEE test: mathematics and ELA. We reviewed and participated in numerous discussions concerning the equating of alternate forms, the score scale used, and the minimum passing levels.

*Analysis of Field-Test and Operational CAHSEE Data.* We analyzed results from a second field test of new CAHSEE questions, conducted in Fall 2000, and began analyses from the operational administrations of CAHSEE in March and May of 2001. Initial analyses of technical characteristics of the test form used in the March administration and the resulting passing rates were described in our Year 2 Evaluation Report (Wise et al., June 2001).

*Longitudinal Surveys of District and School Sample Personnel.* The representative sample of 24 districts and approximately 90 of their high schools required replacement of one district with three schools. The surveys, which were administered to principals and English-language arts and mathematics teachers, provided a continuing look at schools' perspectives of the impact of the CAHSEE on their programs. In addition, testing coordinators were surveyed to identify issues with the administration of the CAHSEE.

The following summarizes the two general and six specific recommendations made in our report of the Year 2 evaluation activities.

*Recommendation 1.* Stay the course. The Legislature and Board should continue to require students in the Class of 2004 to pass the exam, but monitor schools' progress in helping most or all of their students to master the required standards.

*Recommendation 2.* The Legislature and Board should continue to consider options for students with disabilities and English learners.

*Recommendation 3.* Provide more technical oversight for the continued development and administration of the CAHSEE.

*Recommendation 4.* For future classes, delay testing until the 10<sup>th</sup> grade.

*Recommendation 5.* Construct a practice test of released CAHSEE items for districts and schools to administer to 9<sup>th</sup> graders to identify students at risk of failing the CAHSEE.

*Recommendation 6.* Monitor test administration more extensively and develop a system for identifying and resolving issues.

*Recommendation 7.* Develop and implement a more comprehensive statewide information system that will allow the CDE to monitor individual student progress.

*Recommendation 8.* The Superintendent, the Board, and Legislature should specify in more detail the treatment of students in special circumstances (e.g., students with disabilities and English learners) under CAHSEE requirements.

Complete details of the Year 2 effort were presented in the annual evaluation report and first biennial report describing evaluation activities, findings, and recommendations (Wise et al., June 2001; Wise et al., January 2002a). These two reports described results of the first administration of the CAHSEE to 9<sup>th</sup> graders in the Class of 2004. The reports also described preparation for and reactions to the CAHSEE as reported by principals and teachers. A key concern described in these reports was the relatively low passing rate for the mathematics portion of the exam, particularly for students with disabilities and English learners.

### ***Summary of Year 3 Activities (June 2002)***

The first biennial report of the CAHSEE evaluation was released in February 2002 (Wise et al., January 2002a). This report supplemented information on the 2002 administrations from the Year 2 report and included specific recommendations to the Legislature, Governor, and the Board. These were:

*General Recommendation 1.* Stay the course. The Legislature and the Board should continue to require students in the Class of 2004 to pass the exam, but monitor schools' progress in helping most or all of their students to master the required standards.

*General Recommendation 2.* The Legislature and the Board should continue to consider options for students with disabilities and for English learners.

The first biennial report also included several more specific recommendations to:

- Provide more technical oversight.
- Delay testing of future classes until the 10<sup>th</sup> grade.
- Construct a practice test of released CAHSEE items for districts and schools to administer to 9<sup>th</sup> graders to identify students at risk of failing the CAHSEE.
- Monitor test administration more extensively and develop a system for identifying and resolving issues.
- Develop a more comprehensive information system that will allow the state to monitor individual student progress.
- Specify (the Superintendent, the Board, and Legislature working in concert) in more detail how students in special circumstances will be treated by the CAHSEE requirements.

Other Year 3 evaluation activities involved reviewing and analyzing four types of information:

*Test Developer Plans and Reports.* We continued to monitor test development activities and reports. These included changes to test administration procedures, equating alternate forms, and changes to reporting procedures.

*Independent review of test questions.* We assembled two panels of experts in curriculum and instruction, most of whom taught either ELA or mathematics, and asked them to review and analyze questions from recent CAHSEE administrations as well as questions from the (then) new test development contractor that had not yet been used operationally. Ratings indicated the extent to which the questions fairly and completely assessed targeted content standards. In addition, we asked the reviewers to note any specific issues with the quality of the questions or the response options.

*Operational CAHSEE Data.* We analyzed results from the operational administration of CAHSEE to 10<sup>th</sup> graders in March of 2002. We presented our initial analyses of technical characteristics of the test form used in the March administration and the resulting passing rates in our Year 3 Evaluation Report (Wise et al., June 2002b).



*Longitudinal Surveys of District and School Sample Personnel.* The representative sample of 24 districts and approximately 90 of their high schools required replacement of two districts (the original districts dropped out). The surveys, which were administered to principals and English-language arts and mathematics teachers, provided a continuing look at schools' perspectives of the impact of the CAHSEE on their programs. In addition, we surveyed testing coordinators to identify issues with the administration of the CAHSEE.

The Year 3 report of evaluation activities summarized findings from the data that we analyzed (Wise, et al., June, 2002b). We reported that available evidence suggested that the CAHSEE had not yet had any impact on retention, dropout rates, or expectations for graduation and post-high-school plans. Progress in developing the exam continued to be noteworthy. We found no significant problems with the development, administration, or scoring of the March 2002 exam. Students had made significant progress in mastering the required ELA skills, but less progress in mathematics. For disadvantaged students, initial passing rates continued to be low and progress for repeat test-takers was limited. Teachers and principals remained positive about the CAHSEE's impact on instruction. We found that more of them now expected positive impact on student motivation and parental involvement. Finally, teachers and principals reported planning and/or implementing a number of constructive programs for helping students master the skills covered by the CAHSEE.

Based on these findings, we offered the following two general and four more specific recommendations:

*General Recommendation 1.* Schools needed to focus attention on effective ways of helping students master the required skills in mathematics. The CDE might consider a "what works" effort with respect to remedial programs, and disseminating information about effective programs and practices.

*General Recommendation 2.* State policymakers needed to engage in a discussion about reasonable options for those students with disabilities who were unlikely to pass the test.

*Specific Recommendation 1.* The score scale needed to be changed for students scoring below 300 (chance levels). As a short-term solution we recommended simply recoding scores below 300 to 299. Teachers, students, and parents would need to be cautioned against interpreting differences below the 300 level. (Our analysis indicated that the CAHSEE tests are acceptably accurate in determining whether students meet the achievement requirements. However, CAHSEE scores do not provide meaningful distinctions for students scoring below chance levels (about 300 on the current score scale). The recommendation refers to a potential danger that students, parents, and teachers could incorrectly interpret a gain below the 300 level as an indicator of significant progress when it is not)

*Specific Recommendation 2.* Districts and schools should be asked to supply more complete information on who had taken, was taking, and still needed to take the CAHSEE.

*Specific Recommendation 3.* The CDE should work with schools to collect more information on documentation of student needs for accommodations or modifications.

*Specific Recommendation 4.* Educational Testing Service (ETS) should follow up on (a) specific test question issues identified in our item review workshops and (b) specific suggestions for improving their new scoring process from our review of their current online training.

### **Summary of Year 4 Activities (September 2003)**

The Year 4 evaluation activities included reviewing and analyzing three types of information:

*Test Developer Plans and Reports.* We continued to monitor test development activities and reports. These included changes to test administration procedures, equating alternate forms, and changes to reporting procedures.

*Operational CAHSEE Data.* We analyzed results from the six operational administrations of CAHSEE from July 2002 through May 2003. These included continued administration to 11<sup>th</sup> graders in the Class of 2004 who had not yet passed one or both parts of the CAHSEE and a census administration to 10<sup>th</sup> graders in the Class of 2005.

*Longitudinal Surveys of District and School Sample Personnel.* The representative sample of 24 districts and approximately 90 of their high schools required replacement of one district with three schools. The surveys, which were administered to principals and English-language arts and mathematics teachers, provided a continuing look at schools' perspectives of the impact of the CAHSEE on their programs. In addition, testing coordinators were surveyed for the second year to identify issues with the administration of the CAHSEE.

The Year 4 report (Wise et al., September 2003b) of evaluation activities summarized findings from the data that were analyzed. The report stated that available evidence indicated that the CAHSEE had not led to an increase in dropout rates. Passing rates for students in the Class of 2005 were slightly lower than passing rates for students in the Class of 2004. Yet in comparison with Class of 2004 students when they were in the 10<sup>th</sup> grade, more students in the Class of 2005 believed that the CAHSEE was important to them. Schools were continuing efforts to ensure that the California academic content standards were covered in instruction and to provide support for students who needed additional help in mastering these standards. Professional development in the teaching of the content standards had not yet been extensive. Teacher and principal expectations for the impact of CAHSEE on students was largely unchanged from prior years. There were no significant problems with local understanding of test administration procedures, but some issues remained with the provision of student data and the assignment of testing accommodations.



Subsequent to the 2003 administrations, the Board deferred implementation of the CAHSEE requirement to the Class of 2006. Based on information summarized in our general findings, we offered four recommendations for future administration of the CAHSEE:

*Recommendation 1.* Restarting the exam with the Class of 2006 would provide some opportunities for improvement; however, careful consideration should be given to any changes that were implemented.

*Recommendation 2.* The California Department of Education and the State Board of Education should continue to monitor and encourage efforts by districts and schools to implement effective standards-based instruction.

*Recommendation 3.* Professional development for teachers offered a significant opportunity for improvement.

*Recommendation 4.* Further consideration of the CAHSEE requirements for students receiving special education services was needed, in light of the low passing rates for this group. Apparent disparities between racial and ethnic groups within the special education population required further investigation.

Year 4 evaluation activities also included a special study of standards-based instruction, specified under AB 1609 legislation, which included several changes to the CAHSEE. Among other things, this bill called for a special study of the extent to which the development of the CAHSEE and standards-based instruction met the requirements for a high school graduation test. Evaluation activities were expanded to meet the requirements for this study. A detailed description of the study, along with findings and recommendations, were included in a report to the Board issued May 1 (Wise et al., May 2003a) and are not repeated in the present report. Key findings from the study were:

*Finding 1.* The development of the CAHSEE met all of the test standards for use as a graduation requirement.

*Finding 2.* The CAHSEE requirement had been a major factor leading to dramatically increased coverage of the California academic content standards at both the high school and middle school level and to development or improvement of courses providing help for students who have difficulty mastering these standards.

*Finding 3.* Available evidence indicated that many courses of initial instruction and remedial courses had only limited effectiveness in helping students master the required standards.

*Finding 4.* Lack of prerequisite skills may have prevented many students from receiving the benefits of courses that provided instruction in relevant content standards. Lack of student motivation and lack of strong parental support may have played a contributing role in limiting the effectiveness of these courses.

*Finding 5.* Many factors suggested that the effectiveness of standards-based instruction would improve for each succeeding class after the Class of 2004, but the speed with which passing rates will improve remained unknown.

The report did not offer a specific recommendation on whether the CAHSEE requirement should be deferred. The report suggested the Board consider the issue in terms of the following tradeoffs:

1. Schools losing motivation for continued attention to students not achieving critical skills if the requirement were deferred; and
2. Educators becoming distracted by debates and legal actions concerning the adequacy of current instruction if the requirement were continued.

Balancing these tradeoffs required that the Board make a policy decision. The report offered several specific suggestions for consideration if the requirement were continued and other suggestions in the case that the requirement would be deferred. Ultimately, the Board decided to defer the requirement until the Class of 2006. Please see the California Department of Education website [<http://www.cde.ca.gov/ta/tg/hs/evaluations.asp>] for further details on this special study.

The second biennial report of the CAHSEE evaluation was issued in February 2004 (Wise et al., February 2004). This report summarized evaluation activities and findings since the first biennial report (Wise et al., January 2002a). The report included information on the 2002 and 2003 administrations and the AB 1609 study and included specific recommendations to the Legislature, the Governor, and the Board as presented in the Summary of Year 4 Activities above.

### **Summary of Year 5 Evaluation Activities**

*Review of Test Developer Plans and Reports.* We continued to monitor test development activities and reports. These included changes to test administration procedures, equating alternate forms, and changes to reporting procedures.

*Analysis of Operational CAHSEE Data.* We analyzed results from the three operational administrations of CAHSEE in February, March, and May of 2004. These were the first administrations to students in the Class of 2006, the first class now required to pass the CAHSEE for high school graduation.

*Longitudinal Surveys of District and School Sample Personnel.* We began in 2000 with a representative sample of 24 districts and approximately 90 of their high schools. The number varied slightly from year to year as districts and or schools declined to participate for the year or dropped out completely and were replaced. The 2004 sample included 26 districts (a result of contacting two districts in 2003 as replacements and one declining district agreeing to participate) and 86 schools that did not require any replacements. The surveys,

which were administered to principals and English-language arts and mathematics teachers, provided a continuing look at schools' perspectives of the impact of the CAHSEE on their programs. In addition, testing coordinators were surveyed for the third year to identify issues with the administration of the CAHSEE.

### **Organization and Contents of Year 5 Evaluation Report**

The Year 5 Evaluation Report covers activities performed in the independent evaluation through September 30, 2004.

Chapters 2–4 of the current report describe activities conducted during Year 5 and present the results of these activities. The final chapter describes the main findings from these results and our recommendations based on them. The Year 5 Report satisfies a contractual requirement to report on evaluation activities each year. Results from our activities have led to several recommendations that respond to the evaluation requirement for suggestions to improve the quality and effectiveness of the exam and its use.

**Chapter 2** presents analyses of the 2003–04 CAHSEE administrations. The analyses show 10<sup>th</sup> grade passing rates for different demographic groups in the Class of 2006 in comparison to last year's passing rates for the Class of 2005. The comparisons show the impact of changes to test specifications and true gains in student achievement.

**Chapter 3** presents responses to the student questionnaire administered at the end of each testing session. The questions focus on the students' preparation, reactions to the test, and plans. The analysis includes changes in expectations for graduation and post-high-school plans for students who completed questionnaires in February, March, and May of 2004.

**Chapter 4** describes results from the fifth spring survey of teachers and principals participating in the longitudinal study sample and the third year for testing coordinators at the sampled schools. HumRRO continued to organize the evaluation information into five critical areas:

- **Awareness** of and familiarity with the CAHSEE
- **Alignment** of the districts' curricula to state/CAHSEE content standards
- **Planning and preparation** for the CAHSEE
- **Expectations** of impact on instruction, passing rates, and consequences of the CAHSEE
- **Potential effect on** dropout and graduation rates and college attendance

Observations by test site coordinators on the administration and scoring processes are included.

Chapter 5 presents our Findings and Recommendations based on the existing state of data analyses and results.